

Remarks

Claims 1, 2, 4-9 and 23-25 are pending in the application with claims 1, 2, and 7 being the independent claims. Claims 3 and 10-22 are cancelled without prejudice to or disclaimer of the subject matter therein. Of these, claims 10-22 were withdrawn from the application as a result of a restriction requirement. Applicants reserve the right to file continuing applications, including divisional applications, directed to the subject matter of those claims. Claims 1, 2, and 7 are amended. Claims 23-25 are newly added claims. The subject matter of these claims is fully supported by the specification, drawings, and claims as originally filed.

Allowable Subject Matter

The Office Action objected to claims 7-9 as being dependent upon a rejected base claim, but indicated that they would be allowable if rewritten in independent form. By this Reply, Applicants have amended claim 7 to be in independent form and to include all the features of its base claim. Accordingly, claim 7 is in a condition for allowance. Claims 8 and 9 directly or indirectly depend from claim 7. Therefore, Applicants respectfully request that the Examiner allow claims 7-9.

Rejections Under 35 U.S.C. § 102

Claim 1 and 3 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,525,318 to Kim et al., hereinafter referred to as “Kim”.

Claim 1 recites:

*A method of manufacturing a microelectronic device, comprising:
performing a first inspection of a device feature during an intermediate stage of manufacture;
cleaning the device feature after the first inspection; and
performing a second inspection of the device feature after cleaning the device feature, wherein the first and second inspections are performed by a single inspection tool.*

Claim 1 is amended to include the features of original claim 3, and claim 3 is canceled without prejudice or disclaimer. Kim does not anticipate amended claim 1 (original claim 3) because Kim does not disclose all the features of this claim. For example, Kim does not disclose a method of manufacturing a microelectronic device with all the features of claim 1, including a first and a second inspection, “wherein the first and second inspections are performed by a single inspection tool.”

The Office Action states that the second inspection is disclosed in Kim at column 7, lines 32-38. See Office Action, page 3. Kim states, “the reliability of these inspection methods . . . after etching can also be increased” However, this is not a teaching of using a single inspection tool to perform the first and second inspections. There is simply no teaching of whether the same inspection tool is used. At most, the Patent Office could claim that performing inspections using a single inspection tool is inherent in Kim. However, such a claim would still fall short because inherency cannot be based upon probabilities, but requires that the missing descriptive matter be “necessarily present.” See MPEP 2131.01.III. Here, there is no such inherent disclosure. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of amended claim 1 and pass it to allowance.

Rejections Under 35 U.S.C. § 103

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim. Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of U.S. Patent No. 6,512,227 to Iwabuchi et al. Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of U.S. Patent No. 6,841,008 to Branco et al. Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of U.S. Patent No. 6,355,516 to Kim et al.

Of these claims, claims 4-6 depend from and add additional features to independent claim 1. Accordingly, these claims should be allowable for at least the same reasons that claim 1 should be allowable. Applicants respectfully request that the Examiner withdraw the rejection of these claims and pass them to allowance.

Claim 2 is amended to be in independent form, and recites:

*A method of manufacturing a microelectronic device, comprising:
performing a first inspection of a device feature during an intermediate stage of
manufacture;
cleaning the device feature after the first inspection; and
performing a second inspection of the device feature after cleaning the device
feature,
wherein the first inspection is performed by a first inspection tool and the second
inspection is performed by a second inspection tool different than the first inspection tool.*

The Office Action states that Kim does not disclose that the first inspection is performed by a first inspection tool and the second inspection is performed by a second inspection tool different than the first inspection tool, but that this would have been an obvious matter of design choice because it would serve no particular purpose and the invention would perform equally well with the first and second inspections

being performed by a single inspection tool. However, Applicants respectfully traverse this assertion because performing the first and second inspections with different inspection tools could indeed serve a purpose.

Claim 2 is directed to a method of manufacturing. Performing the claimed steps along a manufacturing line might very likely increase the production rate of the product being manufactured. For example, where “the first inspection is performed by a first inspection tool and the second inspection is performed by a second inspection tool different than the first inspection tool,” there is no need to reverse the production manufacturing line to return a device to an inspection tool where it has already been. Therefore, use of two different inspection tools to perform the first and second inspections could very well increase the production rate of manufacturing and may provide other efficiencies. Thus, the use of two separate inspection tools is not necessarily a matter of design choice and the invention may not perform equally well when the first and second inspections are performed using a single tool. There is no disclosure in Kim that would provide motivation to modify Kim to include undisclosed subject matter, such as the claimed inspections where “the first inspection is performed by a first inspection tool and the second inspection is performed by a second inspection tool different than the first inspection tool.” Because Kim does not establish a *prima facie* case of obviousness, Applicants respectfully request that the Examiner withdraw the rejection and allow this claim.

New Claims

Claims 23-25 are newly added claims that depend from and add additional features to independent claim 2 and should be allowable for at least the same reasons that claim 2 is allowable. These claims include subject matter similar to that of dependent claims 4-6. Applicants respectfully request that the Examiner consider these claims and pass them to allowance.

Conclusion

For at least the reasons set forth above, claims 7-9 should be allowable. Further, independent claims 1 and 2 should be in condition for allowance. Dependent claims 4-6 and 23-25 depend from and add additional features to independent claims 1 and 2 and, therefore, also should be in condition for allowance. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections and issue a formal notice of allowance.

Please grant any extension of time required to enter this response and charge any additional required fees to our Deposit Account No. 08-1394.

Respectfully submitted,



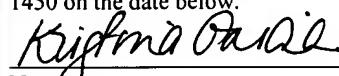
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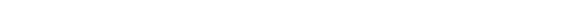
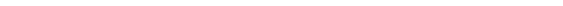
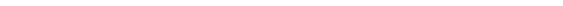
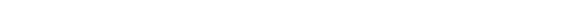
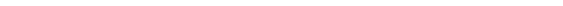
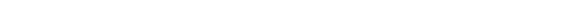
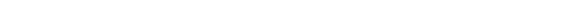
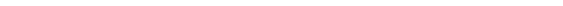
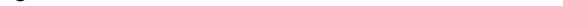
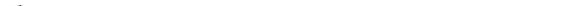
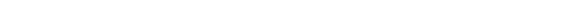
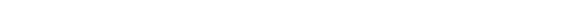
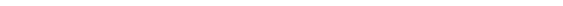
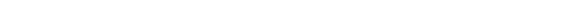
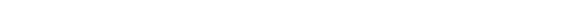
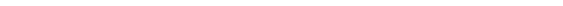
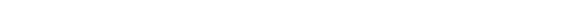
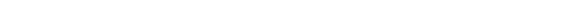
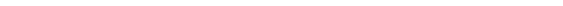
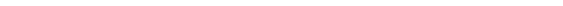
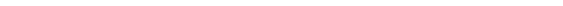
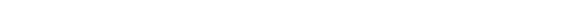
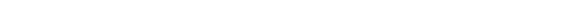
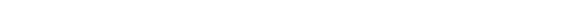
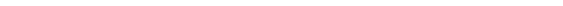
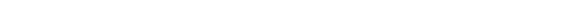
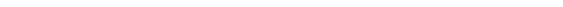
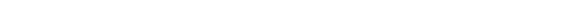
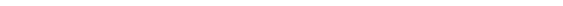
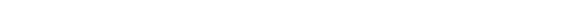
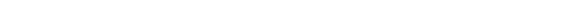
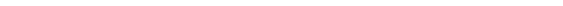
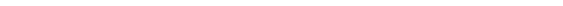
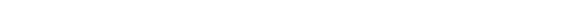
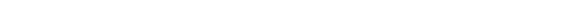
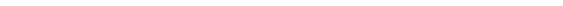
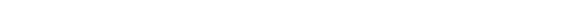
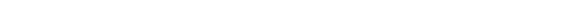
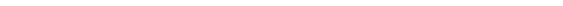
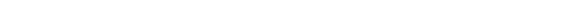
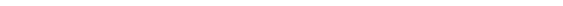
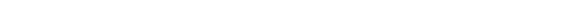
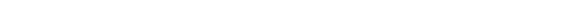
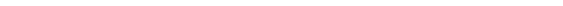
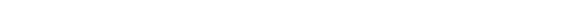
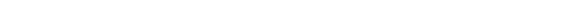
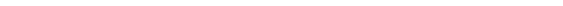
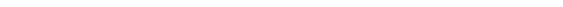
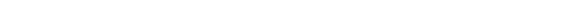
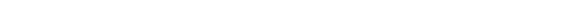
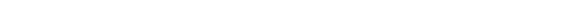
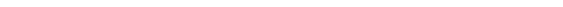
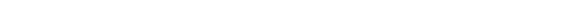
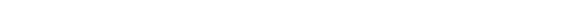
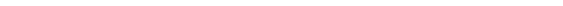
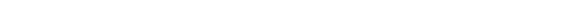
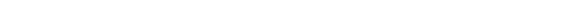
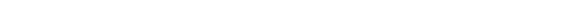
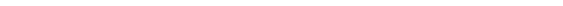
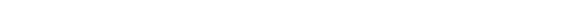
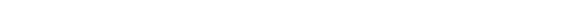
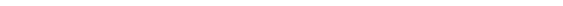
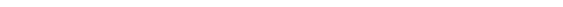
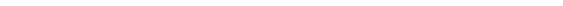
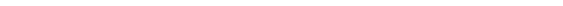
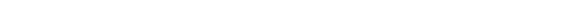
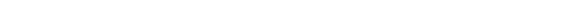
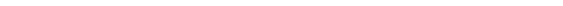
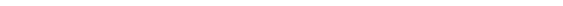
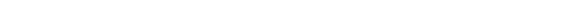
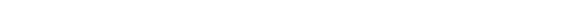
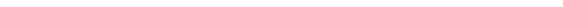
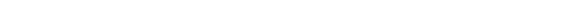
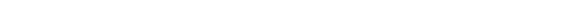
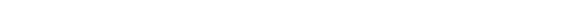
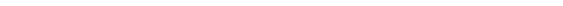
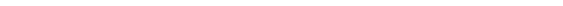
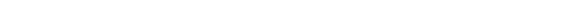
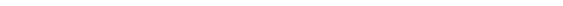
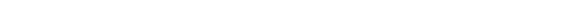
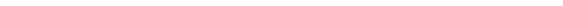
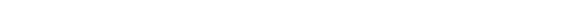
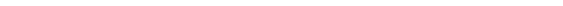
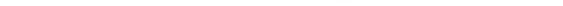
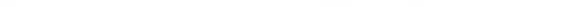
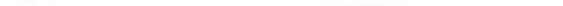
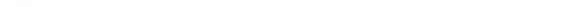
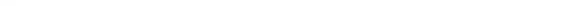
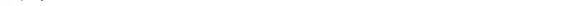
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Mail Stop: Amendment, P.O. Box 1450, Alexandria, VA 22313-1450 on the date below.



Name

October 20, 2005

Date



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